

WE CLAIM:

1. A heat-dissipating fan device comprising:

a fan housing confining a receiving space and including a top wall, and a side wall transverse to said top wall, said top wall being formed with an inlet for access into said receiving space, said side wall being formed with an outlet in fluid communication with said receiving space; and

10 a fan impeller mounted in said receiving space of said fan housing and rotatable about a central axis that is transverse to said top wall of said fan housing, said fan impeller including:

15 a hub cap having an outer surrounding surface that is disposed to surround the central axis, said hub cap having opposite upper and lower portions, and an intermediate portion interconnecting said upper and lower portions;

20 a plurality of coupling ribs extending radially and outwardly from said outer surrounding surface of said hub cap, and spaced apart angularly from each other, each of said coupling ribs having a first end connected to said outer surrounding surface of said hub cap, and a second end opposite to said first end;

25 a first connecting ring disposed coaxially around said intermediate portion of said hub cap, said first connecting ring being connected to said second ends of said coupling ribs;

a second connecting ring disposed coaxially around said lower portion of said hub cap, said second connecting ring having a diameter larger than that of said first connecting ring; and

5 a plurality of fan blades spaced apart angularly from each other, each of said fan blades having a first blade body connected to and disposed uprightly on said first connecting ring, and a second blade body connected to and extending radially from said first blade body,
10 said second blade body having a bottom end connected to said second connecting ring, each adjacent pair of said fan blades confining an air passage therebetween;

15 whereby, rotation of said fan impeller draws air to flow from said inlet of said fan housing toward said outlet of said fan housing through said air passages.

2. The heat-dissipating fan device as claimed in Claim 1, wherein each of said fan blades has a curved cross section.

20 3. The heat-dissipating fan device as claimed in Claim 1, wherein said first end of each of said coupling ribs is connected to said lower portion of said hub cap, each of said coupling ribs curving upwardly from said outer surrounding surface of said hub cap to said first connecting ring.

25 4. The heat-dissipating fan device as claimed in Claim 1, wherein said first connecting ring has a bottom surface connected to said second ends of said coupling

ribs, and a radially and downwardly inclined top surface connected to said first blade bodies of said fan blades.

5. The heat-dissipating fan device as claimed in Claim 1; wherein said first blade body has a height that is substantially a third of that of said second blade body.

6. The heat-dissipating fan device as claimed in Claim 2; wherein said first blade body has an arc length that is substantially a third of that of said second blade body.

10 7. A fan impeller comprising:

a hub cap having an outer surrounding surface that is disposed to surround a central axis, said hub cap having opposite upper and lower portions, and an intermediate portion interconnecting said upper and lower portions;

20 a plurality of coupling ribs extending radially and outwardly from said outer surrounding surface of said hub cap, and spaced apart angularly from each other, each of said coupling ribs having a first end connected to said outer surrounding surface of said hub cap, and a second end opposite to said first end;

25 a first connecting ring disposed coaxially around said intermediate portion of said hub cap, said first connecting ring being connected to said second ends of said coupling ribs;

a second connecting ring disposed coaxially around said lower portion of said hub cap, said second

connecting ring having a diameter larger than that of
said first connecting ring; and

a plurality of fan blades spaced apart angularly from
each other, each of said fan blades having a first blade
body connected to and disposed uprightly on said first
connecting ring, and a second blade body connected to
and extending radially from said first blade body, said
second blade body having a bottom end connected to said
second connecting ring, each adjacent pair of said fan
blades confining an air passage therebetween.